

# THE ANATOMY OF RURAL POVERTY IN ASSAM

**A AHMED**



One of the experiences of planned economic development in India has been that while it has led to a continuous growth of the GDP, the fruits of this increase, contrary to expectations, have not percolated to the bottom strata of the society. This has resulted in a rise in the number of people living below the poverty line on the one hand and increased affluence of a limited number on the other. The realisation of the fact that in a mixed economy like ours, a mere increase in the tempo of economic development may not by itself be sufficient to reduce the number of the poor is responsible for devoting more time and attention by professional economists and policy makers to the study of the problem of poverty. Since a vast majority of the country's population live in rural areas, rural poverty has assumed a greater significance in the study of the problem of poverty. However, despite a prolific increase in the literature on poverty, the genesis of poverty or its anatomy remains imperfectly understood, barring a limited few, poverty has not been viewed as a manifestation of the existing socio-economic order. The present study, a micro-level one, based on six villages of Dibrugarh Sub-Division, is an attempt to fill this vacuum.

An attempt is made in the study not only to estimate the number of poverty-stricken people in the six surveyed villages, but also to establish the link between rural poverty with family size, size of operational holdings, tenancy agreements, unemployment and under-employment, asset holding, indebtedness, dwelling condition, pattern of consumer expenditure and rural infra-structural facilities. The central hypothesis of the book is that the magnitude of rural poverty, which is a product of the existing socio-economic order, cannot be satisfactorily measured with the help of single indicator. Being a multi-dimensional phenomenon, an effective assault on poverty has also to be multi-dimensional and well-integrated. The study is likely to be of immense value to the academics and policy makers.

Dr. Atikuddin Ahmed (b. 1957) is currently Lecturer in Economics, D.H.S.K. College, Dibrugarh (Assam). He obtained his M.A. degree in Economics from Dibrugarh University in 1978 and Ph.D. in Rural Economics from the same university in 1985.

He has published a number of papers on different economic problems of the country. His research work on rural poverty has been widely acclaimed.

ISBN 81-7099-09-2

**THE ANATOMY  
OF  
RURAL POVERTY IN ASSAM**

*(A Case Study of Dibrugarh Sub-division)*

A. AHMED



**MITTAL PUBLICATIONS**  
**DELHI - 110035 (INDIA)**

330.954162

AHM

706  
27.8.91



000706

**First published in 1987**

© Atikuddin Ahmed, 1987

ISBN 81-7099-009-2

*Published by*

**K. M. MITTAL  
MITTAL PUBLICATIONS  
B-2/19-B, Lawrence Road  
DELHI-110035 (INDIA)**

*Printed at*

**Hans Raj Gupta & Sons  
NEW DELHI-110005**

## CONTENTS

<i>Preface</i>	vii
<i>List of Tables</i>	x
1. Introduction	1
2. An Outline of the Dibrugarh District	16
3. Socio-Economic Profile	34
4. Land Utilisation and Land Relationships	60
5. Income Distribution, Employment and Unemployment	80
6. Household Consumption Expenditure	109
7. Asset Holding and Indebtedness	123
8. Dwelling Conditions and Rural Infrastructure	148
9. Incidence of Poverty	160
10. Summary and Conclusions	175
<i>Appendices</i>	193
<i>Bibliography</i>	231
<i>Index</i>	241

## INTRODUCTION

### NATURE, OBJECTIVE AND PURPOSE OF THE STUDY

The present study addresses itself to examine the nature and magnitude of rural poverty in Assam by making an in-depth case study of six villages of the Dibrugarh Sub-division in the district of Dibrugarh. The study is of the exploratory-cum-analytical nature. It starts with the basic premise that poverty, urban as well as rural, is a product of a complex variety of factors and it finds its expression in a number of ways like mal-nutrition, unemployment, poor dwelling condition, shorter expectancy of life etc. Any attempt to measure poverty in terms of a single factor is, therefore, bound to be unsatisfactory. An endeavour is made in this work to measure poverty with help of all the factors mentioned above. It has been shown that various manifestations of poverty are the by-products of the prevailing socio-economic system. It emphasises the need for evolving and using a composite index of poverty so that a comprehensive plan for its eradication can be drawn up.

### METHODOLOGY

The study is mostly based on primary data collected personally from six villages, one each from the five police stations of Dibrugarh Sub-division (excepting Jaipur police station wherefrom two villages were taken because of its disproportionately large population). The six villages, each one of which was randomly selected, were enumerated in full by canvassing a household schedule eliciting the required

information. The collection of data was done from January to December, 1982. In addition, village level data were collected from the Development Blocks to which the selected villages belonged. The data thus collected were verified with the latest available official statistics.

The Household Schedule aimed at obtaining socio-economic details. It consisted of 17 blocks containing blocks of 1. Identification, 2. (i) Household particulars, (ii) Particulars of death, (iii) Earning and occupational distribution, 3. Details of land owned, leased out and leased in, 4. Land utilisation, 5. Details of crops and other agricultural products, 6. Other details of crops, 7. Details of production costs, 8. (i) Household assets, (ii) Household implements, (iii) Other household assets, 9. Poultry and livestock production, 10. (i) Marketing, (ii) Credit, 11. Consumption expenditure, 12. Non-consumption expenditure, 13. Details of income, 14. Savings, 15. Details regarding loans and indebtedness, 16. Employment preferences and availability for additional work and 17. Details of dwelling conditions.

The Village Schedule was designed to collect data relating to rural infra-structure of the surveyed villages. The schedule contained blocks regarding 1. Land utilisation, 2. (i) Transport, (ii) Roads, (iii) Education, (iv) Medical aid, (v) Irrigation, drinking water, sanitation and electricity, (vi) Co-operatives and extension services etc.

The two schedules, household and village, are reproduced as Appendix I and II respectively.

Particulars relating to the surveyed villages are given in Table 1.1.

It is obvious from Table 1.1 that the survey covered in total 292 households with a population of 1815.

The study is primarily analytical in nature. A number of statistical devices have been employed as aids to the analysis. For example, for measuring the concentration of land holdings, Gini Concentration ratio has been worked out. For analysing the concentration of income, Lorenz Curve has been fitted. For measuring elasticity co-efficients, the Engel Function has been derived from the household consumption expenditure data.

TABLE 1.1

**Location, Population and Number of Households in the  
Surveyed Villages**

<i>Village</i>	<i>Police Station</i>	<i>Popu- lation</i>	<i>House- holds</i>	<i>Distance from the nearest town</i>	
1	2	3	4	5	
1. Harak Pathar	Dibrugarh	336	46	Dibrugarh,	14 Kms.
2. Tiyahjalia	Chabua	328	55	Chabua,	5 Kms.
3. Chaharikata Nadial	Bordubi	218	34	Dibrugarh,	49 Kms.
4. Sukan Pathar	Jaipur	196	34	Naharkatiya,	12 Kms.
5. Bokahola	Moran	317	52	Moranhat,	18 Kms.
6. No. 2 Gerekoni Gaon	Jaipur	420	71	Moranhat,	27 Kms.
Total		1815	292		

### LAYOUT OF THE BOOK

The book is divided into ten Chapters. It begins with an introduction to the topic of research with a discussion on the existing literature on poverty. In addition, the chapter incorporates the nature, objective, purpose and methodology adopted for the study.

The Second Chapter gives an outline of Dibrugarh district. It brings into sharp focus that with its tea, coal and oil resources, Dibrugarh is the richest district in Assam and one of the richest in the country from the macro point of view. However, this macro level affluence may conceal widespread incidence of poverty and it is with the intention of bringing this upto the surface that this micro-level study addresses itself.

Chapter Three of the book presents the socio-economic profile of the surveyed villages including the demographic features, caste and family status, levels of education, economic status, occupational distribution etc.

In the Fourth Chapter an attempt is made to analyse some important aspects relating to land ownership, land tenure, land utilisation, cropping pattern and crop intensity. The Gini Concentration ratio for land holding is worked out in this chapter.

The Fifth Chapter deals with the aspects of income distribution, employment and unemployment. In measuring unemployment, time, income and willingness criteria have been employed. The degree of inequality or concentration of incomes of rural households is also represented by the Lorenz curve.

The Sixth Chapter deals with the pattern of household consumption expenditure as revealed by our survey data. In this chapter an attempt is made to compute expenditure elasticities on the basis of Engel function which is estimated by the method of weighted least squares.

Chapter Seven gives an analysis of the pattern of asset holding. It also provides information regarding the capital expenditure made by the surveyed households. In addition, the chapter includes a discussion on the extent of rural indebtedness with an examination of the purposes for which a household incurs debts.

The Eighth Chapter is divided into two sections. Section I deals with the dwelling condition of the surveyed population. Housing accommodation in terms of space and hygiene with a description of environmental sanitation and availability of drinking water facilities is presented in this chapter. Section II presents the picture of rural infrastructure.

The Ninth Chapter attempts to measure the incidence of poverty in the six villages by applying the various norms mentioned already.

The concluding chapter (*i.e.*, Chapter Ten) summarises the main findings of the study. Some suggestions have also been put forward in the light of these findings in this chapter.

## A REVIEW OF LITERATURE

Despite removal of poverty being one of the major objectives of economic planning in our country, the incidence of poverty appears to have increased substantially during the last

three decades of planning. The number of people and also the percentage of population lying below the poverty line (calculated on the basis of minimum nutritional needs in terms of caloric intake) have been increasing. This appears to be owing to the fact that the major premise of our economic planning turned out incorrect in subsequent times. In the early phase of planning, it was believed that economic growth, employment and eradication of poverty followed a sequence in that order. Increasing the growth rate (measured in terms of rise in GNP) was expected to result in the more employment opportunities sufficient to lift the economic condition of those lying below the poverty line above it. It was in the early sixties that doubts began to be raised on this naive hypothesis.<sup>1</sup>

Consequently it became evident that economic growth, to be meaningful, must be attended by increasing participation of masses as it was the only meaningful way of transferring purchasing power and raising the general level of well-being.<sup>2</sup> This led to the search for a development path that would result in growth with equity and elimination of poverty.<sup>3</sup>

Serious studies concerning the problem of poverty have come to occupy a major place in economic literature in recent times. The concept of poverty has been defined variously. Some economists, including Dandekar and Rath,<sup>4</sup> P.D. Ojha,<sup>5</sup> Minhas,<sup>6</sup> Bardhan,<sup>7</sup> Bhatta,<sup>8</sup> Vaidyanathan,<sup>9</sup> and Vyas<sup>10</sup> have drawn a poverty line on the basis of minimum nutritional needs, while other economists like Kurien,<sup>11</sup> Joshi<sup>12</sup> etc., conceive it as a social phenomenon.

The available literature on the subject shows that the problem of poverty from the measurement point of view has been looked at from two angles. The first is the minimum level of living, that is, the cost of the bundle of goods at the relevant prices. The second approach is based on inadequacy of food consumption that is, deficiency of caloric intake, a major component of nutritional requirement for healthy living.<sup>13</sup>

The question of defining a poverty line in India was first mooted by the Indian Labour Conference in 1957<sup>14</sup> and definite attempts to have a specific identification of the poor were made for the first time in the early sixties to formulate a strategy for the elimination of mass poverty. An Expert Committee<sup>15</sup> set up by the Government of India in July 1962,

put the nationally desirable minimum level of consumer expenditure at Rs. 20 per capita per month at 1960-61 prices which became the basis of the poverty line. This continues to be the basis even now.

The first official attempt to measure poverty in quantitative terms was found in the Planning Commission's "Perspective for Development : 1961-76."<sup>16</sup> The study found that more than 60 per cent of the population had a level of consumption expenditure of less than Rs. 25 per capita per month and about 30 per cent less than Rs. 15 per capita per month. The Planning Commission observed that judged against the standard of consumption expenditure of Rs. 20 per capita per month, half of the people in India lived in abject poverty. This aroused the interest of a number of professional economists. Subsequently, various attempts were made to have a more accurate quantitative estimate of poverty in the country as a whole.

Minhas<sup>17</sup> assumed the minimum level of consumption at Rs. 240 and Rs. 200 per capita per annum as the urban and rural poverty line respectively in 1960-61 and found that 50.60 per cent of the rural people were poverty-stricken in 1967-68.

Ojha's<sup>18</sup> estimate showed a rise in the proportion of the poor people. Adopting a caloric norm of 2250 per capita per day for an average Indian, he assumed that 66 per cent of this must be obtained from cereals and the pulses in urban areas ; 80 per cent was the corresponding figure he assumed for the rural sector. Thus the minimum foodgrains requirement worked out to 518 grams and 432 grams per person per day in rural and urban areas respectively. Adopting these standards for studying the incidence of poverty, he found nearly 52 per cent of people in rural areas and 8 per cent in urban areas below the poverty line. The figure for 1967-68 was estimated at 70 per cent in rural areas.

Bardhan<sup>19</sup> considered a consumption expenditure of Rs. 15 per capita per month as the national minimum at 1960-61 prices. Based on this, he estimated that 38 per cent of the rural population lived below the poverty line in 1960-61. The figure increased to 54 per cent in 1968-69.

One of the most detailed and by far the best known study

on poverty in India is by Dandekar and Rath.<sup>20</sup> Taking 2250 calories as the desired minimum level of nutrition and Rs. 180 per capita per annum as the minimum consumption expenditure at 1960-61 prices to attain the above norm, they found that 40 per cent of rural population were below the poverty line in 1960-61.

Taking an income of Rs. 132 per capita per year as the cut-off level, which is considerably lower than the range Rs. 170-240 used by others, Vaidyanathan<sup>21</sup> finds that 15.70 per cent constituting 56 million of the rural population were then living in poverty.

Based on NCAER distribution data for 1968-69 Bhatt<sup>22</sup> found that about 70 per cent of the population in rural India were below the poverty income level of Rs. 30 per capita per month in the same year. He adopted Sen's\* poverty index in quantifying the incidence of poverty among the various rural occupation groups and found the incidence to be maximum among the agricultural labourers (83 per cent) followed by non-agricultural workers (70 per cent) and cultivators (62 per cent).

In another study Vyas<sup>23</sup> found a decline in the incidence of rural poverty during 1950's and traced this to the combined impact of major institutional changes and considerable agricultural growth during the period. The proportion of rural poor below the poverty line (with an income of Rs. 240 per capita per annum) decreased from 45 per cent in 1954-55 to 38 per cent in 1960-61.

Ahluwalia's<sup>24</sup> work on rural poverty examined the trends in the incidence of rural poverty for fourteen different years during the period 1956-57 to 1973-74 for India as a whole as well as for the individual states. The time series data showed fluctuations in the incidence of poverty in response to variations in real agricultural output per head though no significant trend was discernible. He found a statistically significant inverse relationship between rural poverty and agricultural performance for India as a whole.

- \* Sen used a rank order weights and developed a measure of poverty which takes into account not only the poor in total population but also their expenditure gaps from the poverty line which is same as Gini's measure.

Based on NSS 13th round consumption expenditure data for rural India, Chatterjee *et al.*<sup>25</sup> found about 53 per cent of the population falling below the norm of 2400 calories per capita per day.

Mukherjee<sup>26</sup> prepared a map of India delineating clusters of regions relatively homogenous in respect of level of living and the incidence of poverty. He looked at the aerial distribution of poverty over 50 regions. Ranking persons by per capita expenditure he formed a group comprising the poorest 10 per cent of India's rural population and examined how many of these poor fell in different regions.

Taking a consumer expenditure of Rs. 16.36 per capita per month for 1960-61 and a corresponding figure of Rs. 33.86 for 1970-71 as the poverty line, Rajaraman<sup>27</sup> found that the percentage of the population below the poverty line had increased from 18.40 to 23.30 per cent in the ten years. The largest increase in poverty was among the agricultural labourers. Rajaraman's findings are consistent with those of Bardhan, who found no signs of rising prosperity among agricultural labourers in the Punjab following the green revolution.<sup>28</sup> In fact, she found a deterioration in the absolute levels of living and rise in the incidence of poverty in the Punjab which is regarded both as a prosperous and a rapidly growing area.

In a study Datta<sup>29</sup> measured the incidence of poverty and its trends in different states by using three different models. The first model was termed as Fixed Expenditure Model which assumed that poverty line for all the states was same as that for all India (*i.e.*, Rs. 49.09 and Rs. 56.64 per capita per month in rural and urban areas respectively) at 1973-74 prices. In the second model he assumed that in all states caloric norms are the same as that for all India (*i.e.*, 2435 and 2095 calories per capita per day in rural and urban areas respectively) and called it Constant Caloric Model. In the third model an attempt was made to estimate caloric norm for each state using age-sex-occupation structure of the population of the state. This was termed as Variable Caloric Model. The data used for the study relate to different rounds of NSS consumer expenditure and the estimates of total private consumption by CSO.

Following the first model (FEM) it was observed that the

incidence of poverty was higher in rural areas as compared to urban areas. The study found almost the same degree of poverty in rural as well as urban areas in the states of Kerala, Rajasthan and Uttar Pradesh. Rural poverty was observed to be the maximum in Orissa and urban poverty in Kerala. Moreover, poverty was observed to be fluctuating in some states. Fluctuation of poverty, measured by co-efficient of variation of percentage of people below poverty line over time was seen to be relatively high in both rural and urban areas of Assam and the Punjab and in the rural areas of Jammu and Kashmir. Following CCM maximum increase in percentage of poverty in rural areas was found in Himachal Pradesh and that in urban areas of Tripura. VCM revealed Tamil Nadu as the poorest state, where 78.90 per cent and 71.70 per cent of the population were below poverty line in rural and urban areas respectively.

An interesting nutrition study<sup>30</sup> carried out in Tamil Nadu indicated the differences in the incidence of poverty among the districts. Out of 14 districts in Tamil Nadu, more than 90 per cent of protein requirements were fulfilled in only two districts. In three districts, the calorie deficiency was higher than 25 per cent. The study revealed that much microlevel work was to be done before all the major facets of poverty could be unearthed in India.

The perspective Planning Division<sup>31</sup> of the Planning Commission estimated the nutritional requirement of 2435 calories per person per day for rural areas while a Joint Expert Group of the FAO/WHO recommended a minimum of 2223 calories per capita per day for the people in Asia and Far East.<sup>32</sup> In a recent study Goven and Dixon estimated the average energy requirement for the Indian population at 1955 kilocalories a day,<sup>33</sup> while Sukhatme placed the cut-off point for the Indian population at 2200 calories.<sup>34</sup>

In a recent study Banerjee<sup>35</sup> presented a table based on his own field work in a number of villages in eight states in India. Instead of trying to measure poverty in terms of nutritional requirements he measured it in terms of the period of time in a year when people's hunger was satisfied (based on whether they had two meals a day or not). He found that only 52.30 per cent of population surveyed could fully satisfy their hunger.

The rest (47.70 per cent) failed to satisfy their hunger for varying periods of time ranging from one month to six months in a year.

Unfortunately there has been no serious study regarding the incidence of poverty in Assam. The Draft Outline of the Fifth Five Year Plan<sup>36</sup> of Assam (1973) estimated the number of persons below the poverty line at 77.38 per cent for rural areas by taking Rs. 48 per capita per month as the minimum desirable income.

However, a great deal of discrepancies are found in the findings of different studies. These are attributable to different estimates of income, consumption and minimum nutritional levels; the issue of correct price deflator and *a priori* choice of some key conversion factors to overcome the lack of availability of appropriate disaggregated empirical data.<sup>37</sup> Moreover, except calorie intake, other essential features which determine the standard of living of the people have not been taken care of in the determination of poverty level.<sup>38</sup>

Various views have been put forward in the available literature about the causes and remedies of poverty. The low productivity of land and labour is regarded as one of the main causes of poverty. The other contributing factors include inequitable land relations, institutional inadequacies and lack of infra-structure.<sup>39</sup>

Studies by Dandekar and Rath,<sup>40</sup> Minhas<sup>41</sup> and others suggested that to eliminate poverty the pattern of income distribution was to be altered through, (a) a number of specific programmes for the exclusive benefit of the weaker sections of the population, and (b) fiscal and other policy measures which directly or indirectly redistribute assets and income from the rich to the poor. Dandekar and Rath estimated that 40 per cent of the rural population did not earn income necessary for a minimum level of living (Rs. 324 at 1968-69 prices). Leaving aside 10 per cent, who would need some form of social assistance, the remaining 30 per cent would need annually an additional income of Rs. 822 crores for providing them with the minimum desirable consumption expenditure at 1968-69 prices. The authors believed that the only immediately available solution for this was to organise a "work programme" of the order of Rs. 800 to Rs. 1000 crores. Minhas

has made several suggestions of a positive character for the benefit of the poor which include an integrated programme of land consolidation and complementary development works.

Again mass poverty has been detached from unemployment and underemployment. The percentage rate of poverty is almost six times higher than the percentage rate of unemployment. Obviously, poverty cannot be substantially reduced by full employment alone and the wage rate also has to go up by some 30 to 40 per cent.<sup>42</sup>

Ahluwalia and Chenery<sup>43</sup> pointed the need for detailed profiles of poverty highlighting the economic characteristics of poverty groups. Their emphasis was on the sectoral distribution of the poor, their occupational characteristics and educational levels, their ownership of productive assets and their access to key production units. These characteristics were considered to be important determinants in the process of income generation among poverty groups. The groups of people which were afflicted by poverty on the basis of the above features were agricultural labourers, artisans, marginal farmers etc. The poorest groups in under-developed countries were estimated to constitute 50 per cent of the population.<sup>44</sup> Of this population, about two-thirds earned their livelihood from agriculture and they were mainly small farmers. Further, about 70 per cent of the poverty groups<sup>45</sup> were estimated to live in rural areas. Given the scale of the problem, it was considered that a viable strategy for raising the income of the lowest 40 per cent of the population must necessarily focus on the agricultural sector.

In the 1970's it was increasingly recognised that economic growth alone would not reduce absolute poverty at an acceptable speed. So, ILO and World Bank<sup>46</sup> gave attention to four different complementary strategies: increasing employment, meeting basic needs, reducing inequalities in income and wealth and raising the productivity of the poor.

Besides, a batch of economists look at poverty essentially as a social phenomenon rather than a purely economic one. Among them mention may be made of Kurien,<sup>47</sup> Joshi<sup>48</sup> and many others. While recognising poverty as a byproduct of the existing economic structure, they offer a wide variety of solutions some of which are non-economic in character.

Srinivasan observes, "in the Indian literature on poverty measurement there are implicit assumptions that the excluded items of consumption like education, health, water supply, sanitation will somehow be provided to the required extent to all sections whereas distribution of benefits between different sections differ."<sup>49</sup> Rao<sup>50</sup> has suggested that poverty has to be identified with deficiency in the total level of living, it includes not only calorie requirement but also balanced diet needed for health and the other components of basic needs essential for human existence at a tolerable level. Kurien<sup>51</sup> conceptualises poverty as a socio-economic phenomenon and observes that poverty and unemployment cannot be eradicated through an essentially aggregate approach. Person-specific, location-specific, commodity-specific approaches are necessary to deal with these problems and an alternative planning procedure and policy frame, therefore, is needed to minimise the incidence of poverty. Along with economic factors, these economists have identified some non-economic factors, like social immobility, religious rites, unequal family structure as the contributing factors to poverty. Since poverty is a multidimensional phenomenon, anti-poverty policy cannot be narrow in range, limited in emphasis or simple in solution.<sup>52</sup> Any anti-poverty programme must include what Lee Rainwater<sup>53</sup> has called "structural" components, *viz.*, services designed to help specific groups among the poor who cannot be reached by programmes with an aggregative emphasis.

Despite a plethora of literature on poverty, which is fast expanding, there seems to be a lack of unanimity among professional economists on certain concepts, giving rise to debates centring round them.

Thus, our review of literature relating to poverty in India reveals that the major focus has been on the aspects of measurement. Very few studies in fact, have examined the conceptual issues underlying the definition of poverty or explored into the casual links between the various factors underlying the phenomenon. Moreover, neither the official agencies at the state level nor other semi-official research organisations and independent research workers have addressed themselves towards filling up this gap. This fact strengthens the need for an in-depth study on poverty. The present micro-

level village study on the anatomy of poverty in Assam is a humble beginning towards this end.

#### NOTES & REFERENCES

1. Kuznets, S., *Modern Economic Growth*, Yale University Press, 1966, pp. 206-217.
2. Bose, N. K., *Selection from Gandhi*, Navajivan Publication House, Ahmedabad, 1957, pp. 46-48.
3. Myrdal, G., *Asian Drama*, Allen Lane, London, 1968, Vol. II, p. 1255.
4. Dandekar, V. M. and Rath, N., "Poverty in India", *Economic and Political Weekly*, Jan. 9, Vol. VI, No. 2, 1971.
5. Ojha, P. D., "A Configuration of Indian Poverty", Fonseca, A.J. (Ed.), *Challenge of Poverty in India*, Vikash Publications, New Delhi, 1971.
6. Minhas, B. S., *Planning and the Poor*, S. Chand and Company, Delhi, 1974.
7. Bardhan, P. K., "On the Incidence of Poverty in Rural India", *Economic and Political Weekly*, Vol. VIII, Nos. 4-6, Feb. 1973.
8. Bhatti, I. Z., "Inequality and Poverty in Rural India", Srinivasan, T. N. and Bardhan, P. K. (Ed.), *Poverty and Income Distribution in India*, Statistical Publishing Society, Calcutta, 1974.
9. Vaidyanathan, A., "Some Aspects of Inequality in Living Standard in Rural India", Srinivasan, T. N. and Bardhan, P. K., Ed., *op. cit.*
10. Vyas, V. S., "Institutional Change in Agricultural Production and Rural Poverty", *Commerce*, Vol. 3198, No. 125, August 19, 1972.
11. Kurien, C. T., *Poverty Planning and Social Transformation*, Allied Publications, New Delhi, 1978.
12. Joshi, P. C., "Social Dimensions of Poverty", Fonseca, A. J. (Ed.), *op. cit.*
13. Gupta, S. and Joshi, P. D., "On the Concept of Poverty Line and the Estimates of Poverty at the Regional Level in India", A Paper Presented at the First National Conference of Social Sciences, New Delhi, Jan. 1981, p. 1.
14. Govt. of India, Perspective Planning Division, *Report of the Task Force on Projections of Minimum Needs and Effective Consumption Demand*, New Delhi, 1979.
15. Sastry, S.A.R., "A Survey of Literature on Poverty, Income Distribution and Development", *Artha Vijñāna*, Vol. XXII, No. 1, 1980, p. 78.
16. Planning Commission, India, *Perspective for Development : 1961-76*.
17. Minhas, B. S., *op. cit.*, p. 72.
18. Ojha, P. D., "A Configuration of Indian Poverty", Fonseca, A.J. (Ed.), *op. cit.*, p. 37.

19. Bardhan, P. K., "On the Incidence of Poverty in Rural India", *op. cit.*, p. 245.
20. Dandekar, V. M. and Rath, N., 'Poverty in India', *op. cit.*, p. 138.
21. Vaidyanathan, A., "Some Aspects of Inequality in Living Standard in Rural India", *op. cit.*, pp. 215-241.
22. Bhatt, I.Z., "Inequality and Poverty in Rural India", *op. cit.*, pp. 291-336.
23. Vyas, V.S., "Institutional Change in Agricultural Production and Rural Poverty", *op. cit.*, p. 40.
24. Ahluwalia, M. S., "Rural Poverty and Agricultural Performance in India", *The Journal of Development Studies*, Vol. 14, No. 3, April 1978, pp. 289-292.
25. Chatterjee, D.G.S., Sarkar, D. and Paul, G., "A Preliminary Study on the Dietary Levels of Households in Rural India," Mimeographed, Indian Statistical Institute, Calcutta.
26. Mukherjee, M., "Size and Aerial Distribution of the Levels of Living in India", *Sankhya*, Series B-31, Parts 3-4, 1969, pp. 459-478.
27. Rajaraman, I., "Poverty, Inequality and Economic Growth : Rural Punjab (1960-61—1970-71)", *The Journal of Development Studies*, Vol. II, No. 4, July 1975, p. 284.
28. Bardhan, P. K., "The Green Revolution and Agricultural Labourers", *Economic and Political Weekly*, Vol. I-V, Nos. 29, 30 and 31, July 1970, p. 1239.
29. Datta, K.N., "Measurement of Poverty in India—State-wise Estimates", A Paper presented at the First National Conference on Social Sciences, New Delhi, Jan. 12-15, 1981, pp. 2-3.
30. Chaudhury, P., *Indian Economy : Poverty and Development*, Vikash Publications, New Delhi, 1978, pp. 210-211.
31. Planning Commission, India, Perspective Planning Division, *Poverty Level in Five Year Plans*, (a revised note, unpublished), 1978.
32. United Nations, Food and Agricultural Organisation, *Agricultural Commodity Projection : 1970-80*, Rome, 1971, p. 31.
33. Goven, James D. and Dixon, John A., "India : A Perspective on Food Front", *Food Politics, Economics, Nutrition and Research—A Science Compendium*, Philips Abelson Ed., 1975, p. 50.
34. Sukhatme, P. V., "Incidence of Under Nutrition", *Indian Journal of Agricultural Economics*, Vol. XXXII, No. 3, July-Sept. 1977, p. 7.
35. Banerjee, D., "Measurement of Poverty and Under Nutrition," *Economic and Political Weekly*, Vol. XVI, No. 39, Sept. 1981, p. 1580.
36. Planning Board, Assam, *Draft Outline : Fifth Five Year Plan*, Vol. III, 1973, p. 1.
37. Chaudhury, P., *Indian Economy : Poverty and Development*, Vikash Publications, New Delhi, 1978, pp. 210-211.
38. Sastry, S.A.R., "A Survey of Literature on Poverty, Income Distribution and Development", *op. cit.*, p. 87.
39. Awasthi, S.K., "On Ameliorating Rural Poverty", *The Journal of*

*Rural Economy*, Khadi and Village Industries Commission, Bombay, Vol. XXVI, No. II, July 1980, pp. 435-440.

40. Dandekar, V. M. and Rath, N., "Poverty in India", *op. cit.*, p. 144.
41. Minhas, B. S., *Planning and the Poor*, S. Chand & Company, Delhi, 1974, p. 72.
42. Sau, R., "Growth, Employment and Removal of Poverty", *Economic and Political Weekly*, Spl. Number, Vol. XIII. Nos. 31, 32 and 33, August 1978.
43. Ahluwalia, M. S., "Income Inequality : Some Dimensions of the Problem", Chenery, H. et al. *Redistribution with Growth*, Oxford University Press, 1974, pp. 21-22.
44. *Ibid.*, p. 19.
45. *Ibid.*, p. 20.
46. The World Bank, "Poverty and Human Development", *World Development Report*, Washington, D. C., August 1980, p. 32.
47. Kurien, C.T., *Poverty Planning and Social Transformation*, *op. cit.*, p. 8.
48. Joshi, P.C., "Social Dimensions of Poverty", in Fonseca, A.J. (Ed.), *op. cit.*, p. 105.
49. Srinivasan, T. N., "Poverty : Some Measurement Problems", A Paper presented at the 41st Session of the International Statistical Institute held at New Delhi, 1977.
50. Rao, V.K.R.V., "Nutritional Norms by Calorie Intake—Measurement of Poverty", A Paper presented at the 41st Session of the International Statistical Institute, held at New Delhi, 1977.
51. Kurien, C.T., *op. cit.*, p. 143.
52. Miller, S. M., Rein, Martin, Roby, Pamela and Gross, Bertram M., "Poverty, Inequality and Conflict", *The Annals of the American Academy of Political and Social Science*, Sept. 1967, pp. 18-52.
53. Will, Robert E., and Vatter, Harold, G. (Ed.), *Poverty in Affluence*, Harcourt, Brace & World, Inc., New York, 1973 (second edition), p. 161.